

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-12 – cancelled.

13. (New) A method of transparently re-routing data elements transmitted during a network connection along a transmission path between an original source address and an original destination address, said data elements comprising an indication of source address and an indication of destination address, said network connection having protocols above the transport layer protocol capable of maintaining data transmission during disconnection and reconnection when said data elements are re-routed, said method comprising:

- a) at a first point in the transmission path differing from said original destination address:
 - i) receiving a first intercepted data element;
 - ii) modifying the original source address to an alternative source address;
 - iii) modifying the original destination address to an alternative destination address; and
 - iv) re-transmitting the first data element on the transmission path; and
- b) at a second point in the transmission path corresponding to the alternative source address:
 - i) receiving a second data element having the alternative source address as its destination address;

- ii) modifying the destination address to the original source address and modifying the source address to the original destination address; and
- iii) re-transmitting the second data element along the transmission path.

14. (New) A method as in claim 13 in which the second data element is transmitted along the path from the alternative destination address in response to the receipt at the alternative destination of the first data element.

15. (New) A method as in claim 13 in which the first point and the second point are at the same point in the transmission path.

16. (New) A method as in claim 13 which further comprises storing the original source address, original destination address, alternative source address and the alternative destination address said stored addresses indicating an existing routing path for data elements having source and destination addresses matching the stored original source and destination addresses.

17. (New) A method as in claim 16 which further comprises using said stored addresses to identify an existing routing path and modifying the alternative destination address of said identified routing path to a further alternative destination address.

18. (New) An apparatus for transparently re-routing data elements transmitted during a network connection along a transmission path between an original source address and an original destination address, said data elements comprising an indication of source address and an indication of destination address, said network connection having protocols above the transport layer protocol capable of maintaining data transmission during disconnection and reconnection when said data elements are re-routed, said apparatus comprising:

- a) first means at a first point in the transmission path differing from said original destination address, said first means being configured to:
 - i) receive a first intercepted data element;
 - ii) modify the original source address to an alternative source address;
 - iii) modify the original destination address to an alternative destination address; and
 - iv) re-transmit the first data element on the transmission path; and
- b) second means at a second point in the transmission path having the alternative source address and being configured:
 - i) receive a second data element having the alternative source address as its destination address;
 - ii) modify the destination address to the original source address and modify the source address to the original destination address; and
 - iii) re-transmit the second data element along the transmission path.

19. (New) An apparatus as in claim 18 in which the second data element is transmitted along the path from the alternative destination address in response to the receipt at the alternative destination of the first data element.

20. (New) An apparatus as in claim 18 in which the first point and the second point are at the same point in the transmission path.

21. (New) An apparatus as in claim 18 further comprising means configured to store the original source address, original destination address, alternative source address and the alternative destination address said stored addresses indicating an existing routing path for data

elements having source and destination addresses matching the stored original source and destination addresses.

22. (New) An apparatus as in claim 21 further comprising means configured to use said stored addresses to identify an existing routing path and to modify the alternative destination address of said identified routing path to a further alternative destination address.

23. (New) A computer program or suite of computer programs comprising instructions for causing one or more computers to carry out a method of transparently re-routing data elements transmitted during a network connection along a transmission path between an original source address and an original destination address, said data elements comprising an indication of source address and an indication of destination address, said network connection having protocols above the transport layer protocol which capable of maintaining data transmission during disconnection and reconnection when said data elements are re-routed, said method comprising:

- a) at a first point in the transmission path differing from said original destination address:
 - i) receiving a first intercepted data element;
 - ii) modifying the original source address to an alternative source address;
 - iii) modifying the original destination address to an alternative destination address; and
 - iv) re-transmitting the first data element on the transmission path; and
- b) at a second point in the transmission path corresponding to the alternative source address:

- i) receiving a second data element having the alternative source address as its destination address;
- ii) modifying the destination address to the original source address and modifying the source address to the original destination address; and
- iii) re-transmitting the second data element along the transmission path.

24. (New) A computer program or suite of computer programs comprising instructions for causing one or more computers to provide apparatus for re-routing data elements transmitted during a network connection along a transmission path between an original source address and an original destination address, said data elements comprising an indication of source address and an indication of destination address, said network connection having protocols above the transport layer protocol which capable of maintaining data transmission during disconnection and reconnection when said data elements are re-routed, said one or more computers comprising:

- a) first means at a first point in the transmission path differing from said original destination address, said first means being configured to:
 - i) receive a first intercepted data element;
 - ii) modify the original source address to an alternative source address;
 - iii) modify the original destination address to an alternative destination address; and
 - iv) re-transmit the first data element on the transmission path; and
- b) second means at a second point in the transmission path having the alternative source address and being configured to:

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- i) receive a second data element having the alternative source address as its destination address;
- ii) modify the destination address to the original source address and modify the source address to the original destination address; and
- iii) re-transmit the second data element along the transmission path.